

PROPOSED TIER 2.5 ANTIDEGRADATION PROTECTION LANGUAGE

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For discussion by Missouri Antidegradation Advisory Group

Missouri Dept. of Natural Resources

Water Protection Program

A. Waters Qualifying for Tier 2.5 Protection

1. Qualification Criteria

Segments will be subject to Tier 2.5 protection requirements only when that segment has been designated as a water with an exceptional scientific, educational, cultural or natural aesthetic value as defined at 10 CSR 20-7.031(1)(C)14. The factors that may be considered in these designations include the following factors:

- location (e.g., on federal lands such as national parks, national wilderness areas, or national wildlife refuges);
- previous special designations (e.g., wild and scenic river);
- existing water quality (e.g., pristine or naturally-occurring);
- ecological value (e.g., presence of threatened or endangered species during one or more life stages);
- recreational or aesthetic value (e.g., presence of an outstanding recreational fishery); a
- other factors that indicate outstanding ecological or recreational resource value (e.g., rare or valuable wildlife habitat).

2. Water Quality Requirements

Outstanding water quality is not a prerequisite for Tier 2.5 protection. The only requirement is that the segment have outstanding value as an aquatic resource, which may derive from the presence of exceptional scenic or recreational attributes, or from the presence of unique or sensitive ecosystems.

3. Public Nomination

The public may nominate any state water for Tier 2.5 protection at any time by sending a written request to the department. The written request should explain why such protection is warranted based on one or more the factors identified above. Formal comment and consideration of the nomination will typically occur during the state's water quality standards triennial review process.

B. Tier 2.5 Protection Standards

1. No Change in Water Quality Allowed

Except as noted below and as provided for OSRWs, any proposed activity that would result in a permanent lowering in water quality in waters under Tier 2.5 protection is prohibited. This procedure applies to direct and indirect sources of pollutants to these waters. The prohibition applies to new sources and expansion of existing sources in which treatment levels are maintained. Proposed expansions that would also upgrade treatment levels such that existing loading levels will be maintained may be authorized. However, decisions regarding whether to allow new or expanded sources will be made on a case-by-case basis using appropriate techniques and best professional judgement. Factors that may be considered in judging whether water quality may be lowered in Tier 2.5 protected waters include:

- percent change in ambient concentrations predicted at the appropriate critical condition(s);
- percent change in loadings (i.e., the new or expanded loadings compared to total existing loadings to the segment);
- percent reduction in available assimilative capacity;
- nature, persistence, and potential effects of the parameter;
- potential for cumulative effects;
- degree of confidence in the various components of any modeling technique utilized (e.g., degree of confidence associated with the predicted effluent variability).

2. Trading

A proposed activity that will result in a new or expanded source may also be allowed where the applicant agrees to implement or finance controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity. Where such trading occurs on or upstream of a water segment under Tier 2.5 protection, the antidegradation requirements will be considered satisfied where the applicant can show that water quality at all points within the study area will be either maintained or improved. The department will document the basis for the trade through a balance of Waste Load Allocations for all point sources upstream and Load Allocations for all nonpoint sources upstream. Such allocations will include an appropriate margin of safety. Such a margin of safety will address, in particular, the uncertainties associated with any proposed nonpoint source controls, as well as variability in effluent quality for point sources.

3. Information Requirements

The applicant may be required to provide information sufficient to evaluate the potential effects on downstream waters. The information that will be required in a given situation will be identified on a case-by-case basis.

4. Exceptions

An exception may be made for permanent new or expanded sources that, overall, serve to maintain or enhance the value, quality, or use of the water under Tier 2.5 protection. Prior to allowing exceptions, the department shall work with the applicant to identify the

least-degrading alternative. For example, a new or expanded source of water treatment facility effluent may be authorized where reasonable non-degrading or less-degrading treatment alternatives to allowing a new or expanded source are not available. The department shall utilize the procedures included in Section II.B to evaluate alternatives. Exceptions will be granted on a case-by-case basis. In general, exceptions will be granted only where uses will be fully protected and effects on existing water quality will be minimal.

C. Temporary and Limited Effects

Activities that would result in a temporary *and* limited effect on water quality in waters under Tier 2.5 protection may be authorized. The decision regarding whether effects will be temporary and limited will be handled on a case-by-case basis. As a *non-binding* rule of thumb, activities with duration less than one month and resulting in less than a 5 percent change in ambient concentration will be deemed to have temporary and limited effects. Decisions on individual proposed activities may be based on the following factors:

- length of time during which water quality will be lowered;
- percent change in ambient concentrations;
- parameter affected;
- likelihood for long-term water quality benefits to the segment resulting from the proposed activity (e.g., as may result from dredging of contaminated sediments);
- degree to which achieving applicable water quality standards during the proposed activity may be at risk;
- potential for any residual long-term influences on existing uses;
- public use benefits resulting from the proposed activity (e.g., enhancement or expansion of public access, maintenance of the resource).